

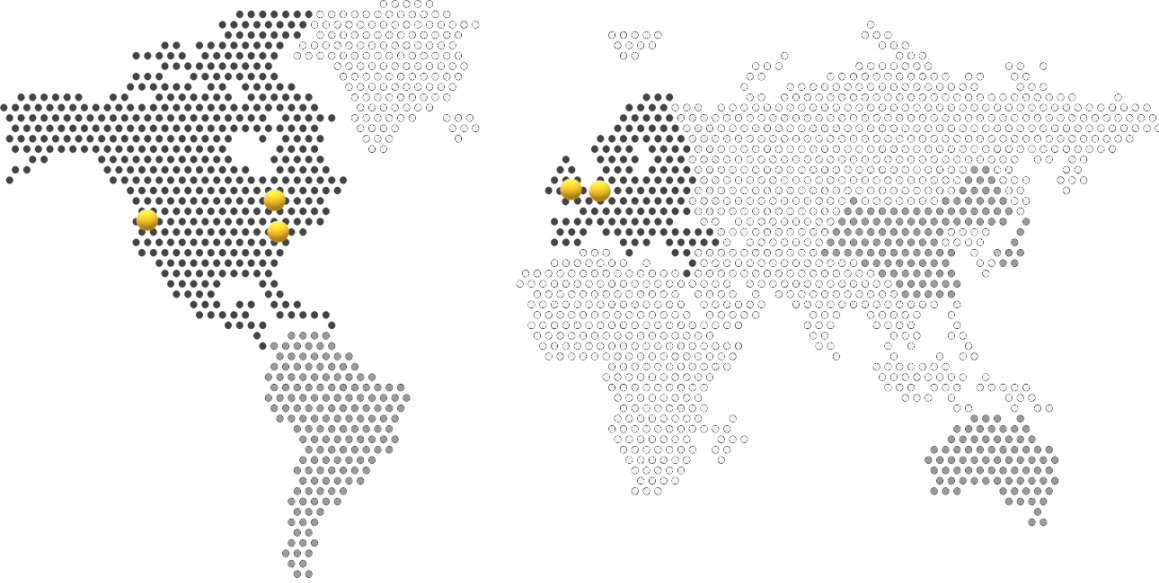
Callisto Integration

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NGen Next Generation
Manufacturing Canada

Callisto
Integration



200

Employees

180

Service Professionals

30+

Years in Business

Industries

Aerospace & Defense

CPG

Food & Beverage

Industrial Products & OEMs

Life Sciences

Metals

Oil & Gas

Power Generation

Callisto Integration

Technology Made
Easy and Effective

Global Leader

Multi-Site, Complex Manufacturing Solutions

IoT, MES, Controls & SCADA, Consulting & Analytics

3,000 +

Digital Manufacturing Implementations

67% Revenue

From Global Fortune 500

Callisto

PROJECT DESCRIPTION

To implement national energy sustainability system. System will allow manufacturers to easily and inexpensively capture and analyse energy usage data, to allow them to determine where energy usage can be reduced.

To expose (in aggregate) manufacturers' energy usage to their peers and the consuming public, to use peer pressure, public sentiment, and consumer buying behavior to incent reductions in energy usage.

PROJECT
DURATION:
12 months

STARTING
MRL LEVEL:

PROJECT OBJECTIVES

- Increase the cost competitiveness of Canadian manufacturers, who operate in a high cost energy market
- Enable energy tracking without the need for expensive energy meters
- Allow consumers to make buying decisions informed by a manufacturer's energy sustainability practices
- To use peer pressure and public consumer sentiment to drive sustainable behavior from manufacturers

ENDING
MRL LEVEL:

OUR EXPERTISE AND ROLE IN THE PROJECT

- Callisto is an expert in the development of software for manufacturing operations
- Extensive experience connecting to shop-floor equipment and devices
- Lead project partner; Partnering with Convergence.Tech (blockchain experts)
- We will develop the edge energy monitoring component, the cloud-based (manufacturer only) repository & analytics tools, integration to the blockchain repository, and the public dashboard

EXPERTISE WE ARE LOOKING FOR:

- Expertise in hybrid (edge/cloud) application architectures
- Manufacturers (Class B and Class A electrical consumers) willing to participate in market research
- Manufacturer (preferably of B2C products) to become Project Partner, to participate in the design of the solution and be the lead site

PROJECT DESCRIPTION

To develop an application based on machine-learning techniques that can (semi-) automatically create a digital process twin, and use the twin to make real-time suggested process adjustments in response to upstream (WIP) product characteristic data, so that the final product characteristics are optimized.

PROJECT
DURATION:
12 months

STARTING
MRL LEVEL:

PROJECT OBJECTIVES

- Develop a generic machine learning algorithm to (semi-) automatically determine relevant features (WIP characteristics, environmental characteristics, finished goods characteristics) and targets (process control variables)
- Develop a generic real-time predictive control algorithm to analyse initial product quality and prescribe the required process control values to achieve optimal final product quality.

ENDING
MRL LEVEL:

OUR EXPERTISE AND ROLE IN THE PROJECT

- Callisto is an expert in the development of software for manufacturing operations
- Callisto has an Analytics practices that is experienced in applying analytics and machine learning to manufacturing
- Lead project partner
- We will develop all of the required software components and engagement methodology

EXPERTISE WE ARE LOOKING FOR

- Process expertise in manufacturing processes which could benefit from predictive quality/process control
 - Key is initial product quality and final product quality are determined in separate steps of the process, with the final product quality being a function of the initial product quality and the downstream process characteristics
- Equipment OEMs with process expertise who see the potential for analytics of this nature as a value-add offering
- Manufacturer to become Project Partner, to participate in the design of the solution and be the lead site